

REMARKS

Attached are formal drawings that include the drawing corrections approved in the last Action.

This Amendment After Final should be entered because the changes to the claims made herein overcome the Section 112, second paragraph rejection, and otherwise place the claims in clear condition for allowance.

The rejection of claims 1-15 and 20 as being incomplete and indefinite have been overcome by amendment. In particular, the term "isolation" has been replaced by the term "separated" to provide the structural relationship requested by the rejection. Further, claims 4 and 20 have been amended to overcome the rejections for being indefinite.

The rejection of claims 1-4, 7 and 9 as being anticipated by Flank et al (U.S. Patent No. 4,838,865 is traversed in part and has been overcome by amendment in part. In particular, independent claims 1 and 16 have been amended to require the fluid passage through the pressure sensor to have an internal diameter that is substantially the same as the internal diameter of the blood passage to which the pressure sensor is coupled. By maintaining a constant diameter through the blood passage and pressure sensor, uniform flow of the blood is promoted. See specification at pages 8 to 9 ("the integrated sensors do not disturb the laminar blood flow inside the blood line since the internal diameter of the sensor element is the same of the blood tubing").

Flank et al disclose a blood pressure sensor (15--shown in detail in Figure 15) that does not have a blood passage with a uniform diameter with the tubing. Flank teaches the blood sensor unit as having a container 101 that is substantially larger than the blood

tubing (103). Accordingly, Flank does not disclose or suggest a blood pressure sensor having a diameter substantially the same as the diameter of the blood tubing in order to promote laminar blood flow through the blood tubing and pressure sensor. Accordingly, Flank et al do not anticipate claims 1 to 4, 7 and 9.

The rejection of claims 5, 6, 10, 11, and 13-19 as being obvious over Flank et al in view of Bullister et al (U.S. Patent No. 6,171,253) is traversed. Flank is distinguishable from the rejected claims for the reasons stated above with respect to independent claim 1.

Bullister et al teach a pressure sensor in a blood tube, where the pressure sensor changes the internal diameter of the blood passage. Much of the disclosure in Bullister et al, describes various ways of modifying the passage way in a blood tube to accommodate a pressure sensor. Bullister et al teaches away from maintaining a uniform diameter passage through a pressure sensor which matches the diameter of a blood tube, as is being done in the claimed invention.

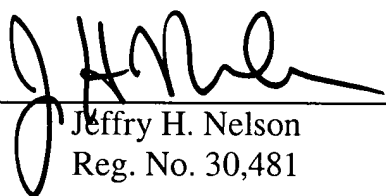
The rejection of claims 8 and 12 as being obvious over Flank et al, Bullister et al and Savits et al (U.S. Patent No. 4,229,299) is traversed for substantially the same reasons as stated above. Flank et al and Bullister et al teach blood sensors which have a diameter substantially different than the diameter of the blood passages to which they are connected. Accordingly, Flank et al and Bullister et al teach away from the claimed invention.

Savits et al does not teach a blood pressure sensor having a diameter substantially the same as the blood passages to which it is connected. Accordingly, the combination of Savits et al, Flank et al and Bullister et al does not teach the claimed invention.

All claims are in good condition for allowance. If any small matter remains outstanding, the Examiner is requested to telephone applicants' attorney. Prompt reconsideration and allowance of this application is requested.

Respectfully submitted,

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